

Commonwealth of Virginia

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

SOUTHWEST REGIONAL OFFICE 355-A Deadmore Street, Abingdon, Virginia 24210 (276) 676-4800 FAX (276) 676-4899 www.deq.virginia.gov

Matthew J. Strickler Secretary of Natural Resources

David K. Paylor Director (804) 698-4000

Jeffrey Hurst Regional Director

July 30, 2019

Mr. Thomas L. Lewis Director of Post Collection Operations King George Landfill, Inc. 10376 Bullock Drive King George, Virginia 22485

Location: King George County, Virginia

Registration No.: 40903

Dear Mr. Lewis:

Attached is a renewal Title V permit to operate your facility pursuant to 9VAC5 Chapter 80 Article 1 of the Virginia Regulations for the Control and Abatement of Air Pollution. The attached permit will be in effect beginning September 12, 2019.

In the course of evaluating the application and arriving at a final decision to issue this permit, the Department of Environmental Quality (DEQ) deemed the application complete on May 2, 2019, and solicited written public comments by placing a newspaper advertisement in the *The Free Lance-Star* on May 13, 2019. The thirty-day required comment period, provided for in 9VAC5-80-270 expired on June 12, 2019.

This permit contains legally enforceable conditions. Failure to comply may result in a Notice of Violation and/or civil charges. <u>Please read all permit conditions carefully.</u>

This permit approval to operate shall not relieve King George Landfill, Inc. of the responsibility to comply with all other local, state, and federal permit regulations.

The Board's Regulations as contained in Title 9 of the Virginia Administrative Code 5-170-200 provide that you may request a formal hearing from this case decision by filing a petition with

Mr. Thomas L. Lewis July 30, 2019 Page 2

the Board within 30 days after this case decision notice was mailed or delivered to you. Please consult the relevant regulations for additional requirements for such requests.

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have 30 days from the date you actually received this permit or the date on which it was mailed to you, whichever occurred first, within which to initiate an appeal of this decision by filing a Notice of Appeal with:

David K. Paylor, Director Department of Environmental Quality P. O. Box 1105 Richmond, VA 23218

If this permit was delivered to you by mail, three days are added to the thirty-day period in which to file an appeal. Please refer to Part Two A of the Rules of the Supreme Court of Virginia for information on the required content of the Notice of Appeal and for additional requirements governing appeals from decisions of administrative agencies.

If you have any questions concerning this permit, please contact Mr. Justin Wilkinson at (703) 583-3820.

Sincerely,

Rob Feagins

Air Permit Manager

Southwest Regional Office

GRF/ABM/40903VA.FNL-19

Attachment: Permit

cc: Director, OAPP (electronic file transfer)

Manager, Data Analysis (electronic file transfer)

Office of Permits and Air Toxics (3AP10), U.S. EPA, Region III (electronic file

submission)



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Federal Operating Permit Article 1

This permit is based upon the requirements of Title V of the Federal Clean Air Act and Chapter 80, Article 1, of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9VAC5-80-50 through 9VAC5-80-300, of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name:

King George Landfill, Inc.

Facility Name:

King George County Landfill

Facility Location:

10376 Bullock Drive

King George, Virginia 22485

Registration Number:

40903

Permit Number:

NRO-40903

This permit includes the following programs:

Federally Enforceable Requirements - Clean Air Act

September 12, 2019

Effective Date

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September 11, 2024

Expiration Date

Jeffrey Hurst

Southwest Regional Director

JULY 30, 201

Signature Date

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Facility Information

Permittee King George Landfill, Inc. 10376 Bullock Drive King George, Virginia 22485

Responsible Official Mr. Thomas L. Lewis Director of Post Collection Operations

Facility
King George County Landfill
10376 Bullock Drive
King George, Virginia 22485

Contact Person
Ms. Angeliquie Vera
Environmental Protection Manager I
(540) 940-3265

County-Plant Identification Number: 51-099-00016

Facility Description: NAICS 562212 - The King George County Landfill (KGCL) consists of a municipal solid waste landfill with a landfill gas collection and control system (GCCS) that includes four open flares (but only three are constructed to date), a sulfur pretreatment system and landfill gas-to-energy recovery system that includes four combustion turbines, and three leachate concentrators. The KGCL is a non-hazardous municipal solid waste (MSW) landfill located off State Route 665, approximately 1.1 miles north of State Route 3 and approximately nine miles east of Fredericksburg in King George County, Virginia. KGCL is owned by the County of King George and operated by King George Landfill, Inc. The facility operates under the terms of Solid Waste Permit No. 586, issued by the DEQ Land Division on August 17, 1995, as amended. The solid waste permit allows the landfill to accept MSW; commercial, industrial, and institutional wastes; construction, demolition, and debris wastes; non-hazardous contaminated soils; non-hazardous incinerator and air pollution control ashes; and other types of waste. KGCL began accepting waste in November 1996.

The facility is a Title V major source of carbon monoxide (CO), nitrogen oxides (NO_x), sulfur dioxide (SO₂) and total hazardous air pollutants (HAP). The facility is located in an attainment area for all pollutants, and is a prevention of significant deterioration (PSD) minor source. The facility is currently permitted under a minor new source review (NSR) permit issued on December 21, 2017.

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Emission Units

Process Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Landfill O	perations			<u> </u>	·		
LFO-1	Landfill	MSW Landfill Operations	66.9 million cubic yards	See Turbines and Flares below	GCCS	NMOC	12/21/2017 minor NSR permit
Fuel Burni	ng Equipme	ent					politic
CF-1 CF-2	SCF1 SCF2	Two Open Flares, LFG Specialties Model CF- 3000	3,000 cfm each, 98.4 MMBtu/hr HHV each	Considered an NMOC emission control device		NMOC	12/21/2017 minor NSR permit
CF-3	SCF3	Open Flare, LFG Specialties Model Flametrol IV	3,500 cfm, 114.8 MMBtu/hr HHV	Considered an NMOC emission control device		NMOC	12/21/2017 minor NSR permit
CF-4	SCF4	To be constructed	3,500 cfm, 114.8 MMBtu/hr HHV	Considered an NMOC emission control device		NMOC	12/21/2017 minor NSR permit
TG-1 TG-2 TG-3 TG-4	S001 S002 S003 S004	Four simple cycle Solar Centaur Turbines, Model GSC 4500/4700	3,330 kW each, 48.6 MMBtu/hr HHV each	SulfaTreat or Paques Thiopaq Biodesulfurization	Sulfur Treat 1 Sulfur Treat 2	SO ₂	12/21/2017 minor NSR permit

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
F004	F004	Emergency generator (diesel)	400 kW	None			N/A
F005	F005	Emergency generator at scale house (propane)	25 kW	None			N/A
F006	F006	Emergency generator at main office (propane)	8 kW	None			N/A
F007	F007	Emergency generator (diesel)	822 hp, 550 kW	None	-		N/A
WP-ENG	WP-ENG	Water pump diesel engine (portable), Sykes (2014)	94 Hp	None			N/A
Leachate C	oncentrato	rs				. 	<u> </u>
LC-1 LC-2	LCS1 LCS2	Two Leachate Concentrators, Heartland Technology Partners, LLC	1,250 gal/hr each				12/21/2017 minor NSR permit
LC-3	LCS3	One Leachate Concentrator, Heartland Technology Partners, LLC	1,667 gal/hr				12/21/2017 minor NSR permit

^{*}The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.

Landfill Requirements - (Emission unit ID# LFO-1)

1. Landfill Requirements - Limitations - The entire landfill gas treatment system as specified in Condition 5 is required to comply with 40 CFR 60.752(b)(2)(iii) and shall be installed and operational whenever landfill gas is being transferred to any of the four combustion turbines (TG-1 to TG-4). Verification of satisfactory operation of treatment equipment shall, at a minimum, include certification that the manufacturer's written requirements or recommendations for installation, operation, and maintenance of the devices shall be followed.

(9VAC5-50-410, 9VAC5-60-100, 9VAC5-80-110, and Condition 9 of 12/21/17 Permit)

- 2. Landfill Requirements Limitations The design capacity of the MSW landfill (LFO-1) is 66,903,223 cubic yards. A change in the design capacity may require a State Air Pollution Control Board permit to construct and operate.

 (9VAC5-80-110 and Condition 10 of 12/21/17 Permit)
- 3. **Landfill Requirements Limitations -** The active landfill gas (LFG) collection and control system shall be designed to handle the maximum gas flow produced by the entire landfill (LFO-1) as required under 40 CFR 60.752.

MSW landfill emissions, measured as non-methane organic compounds (NMOC), collected with the LFG collection and control system shall be controlled by an open flare system (CF-1 to CF-4) and/or the collected gas shall be routed to a treatment system that processes the gas for subsequent sale or use in energy recovery devices (TG-1 to TG-4) including off-site electric power generation. The permittee shall operate the LFG treatment system and/or LFG combustion devices (flares or turbines) at all times when the collected gas is routed to the system. The gas treatment system and all associated atmospheric vents must comply with 40 CFR 60.752(b)(iii)(C). The open flare system shall be provided with adequate access for inspection.

(9VAC-5-50-410, 9VAC5-60-100, 9VAC5-80-110, 40 CFR 60.752(b)(2)(iii), 40 CFR 60.753(f), 40 CFR 63.1955(a)(1), and Condition 11 of 12/21/17 Permit)

- 4. Landfill Requirements Limitations The permittee shall maintain onsite a current landfill gas collection and control system (GCCS) design plan in accordance with the requirements of 40 CFR Part 60, Subpart WWW.

 (9VAC5-80-110 and Condition 12 of 12/21/17 Permit)
- 5. Landfill Requirements Limitations Treated landfill gas shall be that which is produced by the King George Landfill (LFO-1) as that facility is permitted by the Virginia Department of Environmental Quality and has been processed in accordance with 40 CFR 60.752(b)(2)(iii)(C). The landfill gas treatment system, at a minimum, shall be composed of a de-watering process, filtration through a 10-micron filter, and compression. The primary and secondary knockout tanks are located at the King George Landfill. All treated

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landfill gas consumed by the combustion turbines (TG-1 to TG-4) shall pass through each component of the landfill gas treatment process prior to use in the combustion process. (9VAC5-80-110 and Condition 17 of 12/21/17 Permit)

- 6. Landfill Requirements Limitations Unless otherwise specified, dust emission controls shall include the following or equivalent as a minimum:
 - a. Dust from grading, cell construction, waste compaction, application of daily cover, wood waste chipping operations, storage piles and traffic areas shall be controlled by wet suppression or equivalent (as approved by the DEQ) control measures.
 - b. All material being stockpiled shall be kept moist to control dust during storage and handling, or covered to minimize emissions.
 - c. Dust from haul roads shall be controlled by wet suppression and the prompt removal of dried sediment resulting from soil erosion and dirt spilled or tracked onto paved surfaces within the landfill.
 - d. Reasonable precautions shall be taken to prevent deposition of dirt on public roads and subsequent dust emissions. Dirt spilled or tracked onto paved surfaces shall be promptly removed to prevent particulate matter from becoming airborne.
 (9VAC5-80-110 and Condition 19 of 12/21/17 Permit)
- 7. Landfill Requirements Limitations Except where this permit is more restrictive than the applicable requirement, the permittee shall comply with all applicable provisions of 40 CFR Part 60, Subpart WWW Standards of Performance for Municipal Solid Waste Landfills for the construction and operation of the municipal solid waste (MSW) landfill (LFO-1) and gas collection and control system. The permittee shall refer to the most current version of this applicable Federal regulation for additional or revised requirements not included in this permit.

 (9VAC5-50-410, 9VAC5-80-110, Condition 24 of 12/21/17 Permit, and 40 CFR 60, Subpart WWW)
- 8. Landfill Requirements Limitations Except where this permit is more restrictive than the applicable requirement, the permittee shall comply with all applicable provisions of 40 CFR Part 63, Subpart AAAA National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills. In accordance with the provisions of Subpart AAAA, the permittee shall develop and implement a startup, shutdown and malfunction (SSM) plan for the facility in accordance with the provisions of 40 CFR 63.6(e)(3). A copy of the SSM plan must be maintained on site. Failure to write, implement, or maintain a copy of the SSM plan is a deviation from the requirements of Subpart AAAA.

 (9VAC5-60-100, 9VAC5-80-110, 40 CFR 63.1960, 40 CFR 63.6(e)(3), and 40 CFR 63, Subpart AAAA)

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9. Landfill Requirements - Limitations - The permittee shall operate an active GCCS, approved by the Administrator, that captures the landfill gas (LFG) generated within the landfill (LFO-1). The GCCS installed at the King George County Landfill shall be designed in accordance with 40 CFR 60.752(b)(2)(ii)(A). The active collection system shall be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the LFG control or treatment system equipment. The system shall collect LFG from each area, cell, or group of cells in the landfill in which solid waste has been placed for a period of five (5) years or more if active, or two (2) years or more if closed or at final grade. The GCCS shall collect LFG at a sufficient extraction rate. The system shall be designed to minimize the off-site migration of subsurface gas.

(9VAC5-50-410, 9VAC5-60-100, 9VAC5-80-110, 40 CFR 63.1955(a)(1), 40 CFR 60.752(b)(2)(ii)(A), and 40 CFR 60.753(a))

10. Landfill Requirements - Limitations -

- a. The permittee shall operate the GCCS such that the surface methane concentration is less than 500 ppm above the methane background level at the surface of the landfill.
- b. A negative pressure shall be maintained at each active wellhead except in the case of fire, increased well temperature, use of a geomembrane or synthetic cover if the permittee has developed acceptable pressure limits in the GCCS design plan, or at a decommissioned well.
- c. The permittee shall operate each interior, active wellhead in the collection system such that the gas temperature is less than 55 degrees Celsius and with either a nitrogen level of less than 20 percent (20%) or an oxygen level of less than five percent (5%), unless a DEQ approved higher operating value has been established at a particular wellhead.
- d. If monitoring demonstrates that the requirements in paragraphs a, b, or c of this Condition are not met, corrective action shall be taken as specified in 40 CFR 60.755(a)(3) through (5) or 40 CFR 60.755(c). If corrective actions are taken as specified in 40 CFR 60.755, the monitored exceedance is not a violation of these operational requirements.

(9VAC5-80-110, 9VAC5-50-410, 9VAC5-60-100, 40 CFR 63.1955(a)(1), and 40 CFR 60.753(b), (c), (d), and (g))

11. Landfill Requirements - Limitations - The permittee shall place each new well or design component as specified in the GCCS design plan and shall install wells no later than 60 calendar days after the date on which the initial solid waste has been in place in any cell or group of cells for a period of five (5) years or more if active or two (2) years or more if closed or at final grade.

(9VAC5-80-110, 9VAC5-50-410, 9VAC5-60-100, 40 CFR 63.1955(a)(1), and 40 CFR 60.755(b))

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- 12. Landfill Requirements Limitations The provisions of 40 CFR Part 60, Subpart WWW apply to the municipal solid waste landfill (LFO-1) at all times, except during periods of startup, shutdown, or malfunction, provided that the duration of startup, shutdown, or malfunction shall not exceed five (5) days for collection systems and shall not exceed one (1) hour for treatment system or control devices.

 (9VAC5-80-110, 9VAC5-50-410, 9VAC5-60-100, 40 CFR 63.1955(a)(1), and 40 CFR 60.755(e))
- 13. Landfill Requirements Limitations The permittee shall operate the GCCS such that all collected LFG is routed to one or more of the LFG combustion devices or to a LFG treatment system. In the event that the collection and control system malfunctions, the GCCS gas moving equipment shall be shut down and all vents to the atmosphere shall be closed within one (1) hour.

 (9VAC5-80-110, 9VAC5-50-410, 9VAC5-60-100, 40 CFR 63.1955(a)(1), and 40 CFR 60.753(e))
- 14. **Landfill Requirements Limitations -** The collection and control system may be capped or removed provided that all the conditions in the following paragraphs are met:
 - a. The landfill (LFO-1) shall be a closed landfill as defined in 40 CFR 60.751. A closure report shall be submitted to the DEQ as provided in 40 CFR 60.757(d) and Condition 24.a. of this permit;
 - b. The GCCS shall have been in operation a minimum of 15 years; and
 - c. Following the procedures specified in 40 CFR 60.754(b), the calculated NMOC gas produced by the landfill (LFO-1) shall be less than 50 Mg/yr on three (3) successive test dates. The test dates shall be no less than 90 days apart, and no more than 180 days apart.

DEQ may request such additional information as may be necessary to verify that all of the conditions for removal have been met. (9VAC5-50-410, 9VAC5-80-110, 9VAC5-60-100, 40 CFR 63.1955(a)(1), and 40 CFR 60.752(b)(2)(v))

15. Landfill Requirements - Monitoring - The facility shall be equipped with devices to continuously measure the pressure within the treated landfill gas transport system. At a minimum, devices shall be located just before and just after the 10-micron filter and after the completed treatment process. Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the facility is operating.

(9VAC5-80-110 and Condition 3.b. of 12/21/17 Permit)

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- 16. Landfill Requirements Monitoring The monitoring device used to measure the pressure in the treated landfill gas system shall be observed by the facility whenever treated landfill gas is combusted in the combustion turbines (TG-1 to TG-4) with a frequency of not less than daily (excluding weekends and holidays) to ensure good performance of the treatment system. The facility shall keep a daily log of the observations from the monitoring device, including the change in pressure across the 10-micron filter. (9VAC5-80-110 and Condition 5 of 12/21/17 Permit)
- 17. Landfill Requirements Monitoring The operator of the MSW Landfill Facility (LFO-1), owner or permittee shall demonstrate compliance with operational standards for the LFG Collection and Control System required by Subpart WWW (40 CFR 60.753) in accordance with appropriate subsection(s) of Subpart WWW (40 CFR 60.755). The operator of the MSW Landfill Facility, owner or permittee shall demonstrate compliance with the LFG Collection and Control System requirements of Subpart WWW (40 CFR 60.752) in accordance with appropriate subsection(s) of Subpart WWW (40 CFR 60.755). All reports required to demonstrate compliance with the requirements of Subpart WWW (40 CFR 60.755) shall be prepared and submitted to the Air Compliance Manager, NVRO (as referenced in Condition 79), as required by Subpart WWW (40 CFR 60.755). (9VAC5-80-110, and Condition 32 of 12/21/17 Permit)
- 18. Landfill Requirements Monitoring The LFG collection and control system and flare system (CF-1 to CF-4) shall be monitored and all appropriate data recorded as required in Subpart WWW (Subsection 60.756). Surface monitoring shall be performed in accordance with the facility surface monitoring design plan.
 (9VAC5-80-110, 9VAC5-50-410, 9VAC5-60-100, 40 CFR 63.1955(a)(1), 40 CFR 60.756(a), and Condition 33 of 12/21/17 Permit)
- 19. Landfill Requirements Monitoring The operation of each open flare (CF-1 to CF-4) shall be monitored as follows:
 - a. Install, calibrate, maintain and operate according to the manufacturer's specifications a heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame; and
 - b. Install, calibrate, maintain and operate according to the manufacturer's specifications a flow rate measuring device that shall record gas flow to the flare at least every 15 minutes or secure the bypass line valve in the closed position with a car-seal or lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.
 (9VAC5-80-110, 9VAC5-50-410, 9VAC5-60-100, 40 CFR 63.1955(a)(1), and 40 CFR 60.756(c))

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- 20. Landfill Requirements Monitoring The permittee shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis. (9VAC5-80-110, 9VAC5-50-410, 9VAC5-60-100, 40 CFR 63.1955(a)(1), and 40 CFR 60.755(c)(5))
- 21. Landfill Requirements Recordkeeping The facility shall maintain records of emissions data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Regional Air Compliance Manager of the DEQ's NRO (at the address listed in Condition 79). These records shall include, but are not limited to:
 - a. The yearly accumulation of MSW, calculated monthly as the sum of each consecutive twelve (12) month period; and
 - b. A log for each monitoring device data and the observations, as required by Condition 16 for the treated landfill gas transport system pressure readings.

The content and format of such additional records shall be arranged with the Regional Air Compliance Manager of the DEQ's NRO. All records required by this Condition and by 40 CFR Part 60, Subparts WWW and KKKK shall be available on site for inspection by the DEQ and shall be kept current for the most recent five (5) years. (9VAC5-80-110, 9VAC5-50-50, and Condition 35 of 12/21/17 Permit)

- 22. Landfill Requirements Recordkeeping The permittee shall maintain the following records in accordance with 40 CFR Part 60, Subpart WWW:
 - a. Instances when positive pressure occurs in a GCCS wellhead in efforts to avoid a fire. These records shall be submitted with the semi-annual report (see Condition 25);
 - b. The permittee shall keep up-to-date, readily accessible records for the life of the control equipment of the data listed below as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring shall be maintained for a minimum of five (5) years. Records of the control device vendor specifications shall be maintained until removal.
 - i. The maximum expected gas generation flow rate as calculated in 40 CFR 60.755(a)(1).
 - ii. The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in 40 CFR 60.759(a)(1).
 - iii. The open flare (CF-1 to CF-4) information as specified in paragraph g of this condition.

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- c. The permittee shall keep for five (5) years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in 40 CFR 60.756 (see Conditions 18 and 19) as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded.
- d. The permittee shall keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned LFG collector in the system and providing a unique identification location label for each collector. Any areas of the landfill containing asbestos or non-degradable waste such as incinerator ash shall be delineated on the map if they are to be excluded from the collection system. Records of the nature, date of deposition, and amount deposited shall be accessible. Additionally, the permittee shall keep up-to-date, readily accessible records of the installation date and location of all newly installed LFG collectors as specified in 40 CFR 60.755(b).
- e. The permittee shall keep for at least five (5) years up-to-date, readily accessible records of all collection and control system exceedances of the operational standards in 40 CFR 60.753 (see Conditions 9, 10, and 13), the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance.
- f. In accordance with 40 CFR Part 60, Subpart WWW, the permittee shall keep for five (5) years up-to-date, readily accessible continuous records of the flares' (CF-1 to CF-4) operating parameters specified to be monitored in 40 CFR 60.756 (see Condition 19).
- g. The permittee shall keep up-to-date, readily accessible records for the life of the control equipment as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring shall be maintained for a minimum of five (5) years. Records of the control device vendor specifications shall be maintained until the equipment is removed. These records shall include, a description of the flare type (i.e., steam-assisted, air-assisted, or non-assisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in 40 CFR 60.18; continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame of the flare flame is absent.
- h. Records and reports as specified in the general provisions of 40 CFR Part 60 and 40 CFR Part 63 as shown in Table 1 of 40 CFR Part 63, Subpart AAAA.

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- i. Startup, shutdown and malfunction plans and SSM plan reports. (9VAC5-50-410, 9VAC5-60-100, 9VAC5-80-110, 40 CFR 60.753(b)(1), 40 CFR 60.758, and 40 CFR 63.1980(a) and (b))
- 23. Landfill Requirements Testing The gas collection and control system shall be constructed so as to allow for emissions testing and monitoring upon reasonable notice at any time, using appropriate test methods specified in 40 CFR 60 Subpart WWW, as applicable; 40 CFR 60 Appendix A, as applicable; or as determined by the Air Compliance Manager, Northern Regional Office, in consultation with the operator of the MSW Landfill Facility, owner or permittee. Test ports shall be provided at the appropriate locations. (9VAC5-80-110 and Condition 13 of 12/21/17 Permit)

24. Landfill Requirements - Reporting

- a. The permittee shall submit a closure report to the DEQ within 30 days of waste acceptance cessation. DEQ may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 40 CFR 258.60. If a closure report has been submitted to the DEQ, no additional wastes may be placed into the landfill (LFO-1) without filing a notification of modification.
- b. The permittee shall submit an equipment removal report to the DEQ 30 days prior to removal or cessation of operation of the control equipment. The report shall contain the following:
 - i. A copy of the closure report (see Condition 24.a.):
 - ii. A copy of the initial performance test report demonstrating that the 15 year minimum control period has expired; and
 - iii. Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 Mg or greater of NMOC per year.

DEQ may request such additional information as may be necessary to verify that all of the conditions for removal have been met.

(9VAC5-50-410, 9VAC5-60-100, 9VAC5-80-110, 40 CFR 60.752(b)(2)(v), 40 CFR 60.757(d) and (e), and 40 CFR 63.1980(a))

25. Landfill Requirements - Reporting - The permittee shall submit the following information to the DEQ in a semi-annual report (due on or before March 1st and September 1st) in accordance with 40 CFR Part 60, Subpart WWW and 40 CFR Part 63, Subpart AAAA:

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- a. For the GCCS wellheads, the value and length of time for exceedance in well pressure, temperature, and nitrogen or oxygen parameters.
- b. For the control device bypasses, a description and duration of all periods when LFG flows through a bypass line or duration which the bypass valve is unlocked.
- c. For the open flares (CF-1 to CF-4), description and duration of all periods when no control devices were operating for a period exceeding 1 hour and length of time the control devices were not operating.
- d. Description and duration of all periods when the collection system was not operating in excess of 5 days.
- e. The location of each exceedance of the 500 ppm surface methane concentration and the concentration recorded at each location for which an exceedance was recorded in the previous month.
- f. The date of installation and the location of each well or collection system expansion added due to exceedances of oxygen, nitrogen, or pressure, the age of the initial solid waste placed in a cell or group of cells, or due to exceedances of surface methane concentrations.
- g. Startup, shutdown, and malfunction plan reports:
 - i. If actions taken during a startup, shutdown or malfunction are consistent with the procedures in the SSM plan, this information shall be included in a semi-annual SSM plan report.
 - ii. Any time an action taken during a startup, shutdown or malfunction is not consistent with the SSM plan, the source shall report actions taken within 2 working days after commencing such actions, followed by a letter 7 days after the event. Any new actions that are indicated as appropriate during an SSM event shall be incorporated in a new SSM plan.

(9VAC5-80-110, 9VAC5-50-410, 9VAC5-60-100, 40 CFR 60.757(f), 40 CFR 63.10(b) and (d), and 40 CFR 63.1980(a) and (b))

Fuel Burning Equipment Requirements – (Emission unit ID# TG-1 to TG-4, CF-1 to CF-4, F004 to F006, and WG-ENG)

- 26. Fuel Burning Equipment Requirements Limitations Emissions from the Solar Centaur combustion turbines (TG-1 to TG-4) shall be controlled by the following:
 - a. Nitrogen oxides (as NO₂) emissions shall be controlled by the combustion of treated landfill gas (see Condition 5) whenever any of the combustion turbines are operated.

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The facility shall install and operate a flow meter and associated recordkeeping device to determine the flow of treated landfill gas to the combustion turbines. The facility shall operate and maintain the stationary combustion turbines, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction.

- b. Sulfur Dioxide (SO₂) emissions shall be controlled by the SulfaTreat and/or Pacques Thiopaq sulfur control systems, as necessary, to comply with the sulfur dioxide emission limits for the turbines, as stated in Condition 31. The facility shall operate and maintain the equipment in a manner consistent with good air pollution control practices for minimizing emissions including during startup, shutdown, and malfunction.
- c. Per 40 CFR 60.4333, the facility shall operate and maintain the stationary combustion turbines and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including startup, shutdown and malfunction. In addition, the permittee may only change those settings that are permitted by the manufacturer and do not degrade the air emissions from the combustion turbines.
- d. Any uncontrolled venting of landfill gas from the combustion turbines, the landfill gas treatment system, or the treated landfill gas transport system is prohibited. All atmospheric vents in the treated landfill gas transport system shall be controlled by a lockout-tag-out system or by installing and operating a device to divert the emissions from all vents to an approved landfill gas control system.
- e. All components of the combustion turbine facility's landfill gas treatment system, which consists of the treated landfill gas transport system (blowers and compressors), landfill gas filtration and landfill gas dewatering, shall be in operation whenever the facility is operating the combustion turbines. If any component of the landfill gas treatment system or treated landfill gas transport system malfunctions, the treated landfill gas transport system shall be shut down and all untreated landfill gas shall be diverted to the flare(s).

(9VAC5-80-110, 40 CFR 60.4333(a), and Condition 1 of 12/21/17 Permit)

- 27. Fuel Burning Equipment Requirements Limitations Visible emissions, particulate emissions and volatile organic compounds (VOC) emissions from the operation of the flares (CF-1 to CF-4) shall be controlled by the use of good operating practices and performing appropriate maintenance in accordance with the manufacturer recommendation. (9VAC5-80-110 and Condition 2 of 12/21/17 Permit)
- 28. Fuel Burning Equipment Requirements Limitations The approved fuel for the open flares (CF-1 to CF-4) is landfill gas. Natural gas or LP gas may be used as fuel for the

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pilot. The approved fuel for the four combustion turbines (TG-1 to TG-4) is treated landfill gas. A change in the fuels may require a permit to modify and operate. (9VAC5-80-110 and Condition 14 of 12/21/17 Permit)

- 29. Fuel Burning Equipment Requirements Limitations The facility (TG-1 to TG-4 and CF-1 to CF-4) shall consume no more than 6.376 x 10⁹ cubic feet of LFG per year, calculated monthly as the sum of each consecutive twelve (12) month period. (9VAC5-80-110 and Condition 15 of 12/21/17 Permit)
- 30. Fuel Burning Equipment Requirements Limitations The treated LFG used in the four combustion turbines (TG-1 to TG-4) shall meet the specifications below:

Minimum heat content: 300 BTU/scf

The higher heating value (HHV) of the treated landfill gas shall be determined using methods outlined in Condition 49.

The net heating value of gas being routed to the open flares (CF-1 to CF-4) shall be at least 200 Btu/standard cubic foot.

(9 VAC 5-80-110, 40 CFR 60.4330, and Condition 16 of 12/21/17 Permit)

31. **Fuel Burning Equipment Requirements - Limitations -** Emissions from the combined operation of the open flare system (CF-1 to CF-4) and the four LFG combustion turbines (TG-1 to TG-4) shall not exceed the limits specified below:

Sulfur Dioxide 242.0 tons/yr

Nitrogen Oxides (as NO₂) 170.1 tons/yr

Carbon Monoxide 242.0 tons/yr

NMOC as Hexane 17.4 tons/yr

PM-10 (Total) 31.7 tons/yr

Emissions from the operation of each of the combustion turbines (TG-1 to TG-4) shall not exceed the limits specified below:

Nitrogen Oxides (as NO₂) 96 ppm at 15 percent O₂ or 700 ng/J of useful output

(5.5 lb/MWh)

Sulfur Dioxide 65 ng SO₂/J (0.15 lb SO₂/MMBtu) heat input

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Compliance with the 40 CFR Part 60, Subpart KKKK standards for NO_x shall be determined by stack testing. All other emission limits are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of emission limits. Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period. Compliance with these emission limits may be determined as stated in Condition numbers 3, 4, 5, 27 and 30.

(9VAC5-80-110, 40 CFR 60.4320(a), 40 CFR 60.4330(a)(3), and Condition 20 of 12/21/17 Permit)

32. Fuel Burning Equipment Requirements - Limitations - Each open flare (CF-1 to CF-4) shall be operated with no visible emissions, as determined by EPA Method 22 (reference 40 CFR 60, Appendix A), except for periods not to exceed a total of five (5) minutes during any two (2) consecutive hours.

Visible emissions from each of the four (4) combustion turbine (TG-1 to TG-4) stacks shall not exceed 10% opacity whenever the combustion turbines are operated except during one (1) six-minute period in any one hour in which visible emissions shall not exceed 20% opacity. All visible emissions rates shall be determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.

(9VAC5-50-80, 9VAC5-80-110, and Condition 23 of 12/21/17 Permit)

33. Fuel Burning Equipment Requirements - Limitations - The permittee shall comply with all applicable provisions of 40 CFR 60, Subpart KKKK - Standards of Performance for Stationary Combustion Turbines for the operation of the four (4) Solar Centaur Turbines (TG-1 to TG-4).

(9VAC5-50-410, 9VAC5-80-110, 40 CFR 60, Subpart KKKK, and Condition 24 of 12/21/17 Permit)

34. Fuel Burning Equipment Requirements - Limitations - The permittee shall operate each of the four combustion turbines (TG-1 to TG-4) in a manner which minimizes emissions of hazardous air pollutants.

(9VAC5-60-100, 9VAC5-80-110, and 40 CFR 63.6125(c))

35. Fuel Burning Equipment Requirements - Limitations - The permittee shall comply with all applicable provisions of 40 CFR 60, Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines for the operation of the emergency generator diesel engines (F004 and F007). The permittee shall refer to the most current version of this applicable Federal regulation for additional or revised requirements not included in this permit.

(9VAC5-50-410, 9VAC5-80-110, and 40 CFR 60, Subpart IIII)

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- 36. Fuel Burning Equipment Requirements Limitations The emergency generator diesel engines (F004 and F007) must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel.

 (9VAC5-80-110 and 40 CFR 60.4207(b))
- 37. Fuel Burning Equipment Requirements Limitations The emergency generator diesel engines (F004 and F007) shall be certified as meeting the engine manufacturer emission standards and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants (NOx, CO, HC, PM, and opacity) beginning in model year 2007. (9VAC5-80-110, 40 CFR 60.4202(a), 40 CFR 60.4205(b), and 40 CFR 60.4211(c))
- 38. **Fuel Burning Equipment Requirements Limitations -** The permittee shall comply with the following requirements, as applicable, for the emergency generator diesel engines (F004 and F007):
 - a. Install, configure, operate and maintain the engines in accordance with the manufacturer's emission-related specifications and written instructions;
 - b. Change only those emission-related settings that are permitted by the manufacturer; and
 - c. Meet the requirements of 40 CFR 89, 94, and/or 1068, as applicable. (9VAC5-80-110 and 40 CFR 60.4211(a) & (c))
- 39. Fuel Burning Equipment Requirements Limitations The permittee must operate the emergency generator diesel engines (F004 and F007) according to the requirements in paragraphs a through c of this condition. In order for the engines to be considered emergency stationary internal combustion engines under 40 CFR Part 60, Subpart IIII, any operation other than emergency operation, maintenance, and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs a through c of this condition, is prohibited. If the engines are not operated according to the requirements in paragraphs a through c of this condition, the engines will not be considered emergency engines under 40 CFR Part 60, Subpart IIII and must meet all requirements for non-emergency engines indicated in 40 CFR Part 60, Subpart IIII.
 - a. There is no time limit on the use of the emergency generator engines in emergency situations.
 - b. Each emergency generator engine may be operated for a maximum of 100 hours per calendar year for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Administrator for approval of additional hours to be used for maintenance

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checks and readiness testing, but the petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency engines beyond 100 hours per calendar year.

c. Each emergency generator engine may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing. Except as provided in 40 CFR 60.4211(f)(3)(i), the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(9VAC5-80-110 and 40 CFR 60.4211(f)(1), (f)(2)(i) and (f)(3))

- 40. **Fuel Burning Equipment Requirements Limitations** If the emergency generator diesel engines (F004 and F007) are not installed, configured, operated, and maintained according to the manufacturer's emission-related written instructions, or emission-related settings are changed in a way that is not permitted by the manufacturer, the permittee must demonstrate compliance as follows:
 - a. Keep a maintenance plan and records of conducted maintenance;
 - b. To the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions; and
 - c. Conduct an initial performance test in accordance with 40 CFR 60.4212 (a) through (e) to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after the engine is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after emission-related settings are changed in a way that is not permitted by the manufacturer. Subsequent performance testing shall be conducted every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standard.

(9VAC5-80-110, 40 CFR 60.4211(g)(3), and 40 CFR 60.4212)

- 41. Fuel Burning Equipment Requirements Limitations The permittee shall maintain the emergency generator propane-fired engines (F005 and F006) as follows:
 - a. Change oil and filter every 500 hours of operation or annually, whichever comes first;
 - b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
 - c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

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The permittee may utilize an oil analysis program as described in 40 CFR 63.6625(j) in order to extend the specified oil change requirement in paragraph a of this condition. If the engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice on the required schedule, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. The permittee must report any failure to perform the management practice on the schedule required and the federal, state, or local law under which the risk was deemed unacceptable. (9VAC5-60-100, 9VAC5-80-110, 40 CFR 63.6602, and 40 CFR Part 63, Subpart ZZZZ, Footnote 1 of Table 2c)

- 42. Fuel Burning Equipment Requirements Limitations Except where this permit is more restrictive than the applicable requirement, the permittee shall at all times operate and maintain the emergency generator propane-fired engines (F005 and F006) as follows:
 - a. In compliance with applicable requirements of 40 CFR Part 63, Subpart ZZZZ.
 - b. In a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by 40 CFR Part 63, Subpart ZZZZ have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the DEQ which may include, but is no limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

(9VAC5-60-100, 9VAC5-80-110, and 40 CFR 63.6605(a) and (b))

- 43. Fuel Burning Equipment Requirements Limitations The permittee shall operate and maintain the emergency generator propane-fired engines (F005 and F006) and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop a maintenance plan that provides to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

 (9VAC5-60-100, 9VAC5-80-110, and 40 CFR 63.6625(e)(2))
- 44. Fuel Burning Equipment Requirements Limitations The permittee must operate the emergency generator propane-fired engines (F005 and F006) according to the requirements in paragraphs a through c of this condition. In order for the engines to be considered emergency stationary reciprocating internal combustion engines (RICE) under 40 CFR Part 63, Subpart ZZZZ, any operation other than emergency operation, maintenance, and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs

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a through c of this condition, is prohibited. If the engines are not operated according to the requirements in paragraphs a through c of this condition, the engines will not be considered emergency engines under 40 CFR Part 63, Subpart ZZZZ and must meet all requirements for non-emergency engines indicated in 40 CFR Part 63, Subpart ZZZZ.

- a. There is no time limit on the use of the emergency generator engines in emergency situations.
- b. The emergency generator engines may be operated for a maximum of 100 hours per calendar year for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but the petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.
- c. Each emergency generator engine may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(9VAC5-60-100, 9VAC5-80-110, and 40 CFR 63.6640(f)(1), (f)(2)(i) and (f)(3))

- 45. Fuel Burning Equipment Requirements Limitations The water pump engine (WP-ENG) is listed as a 94 hp portable internal combustion diesel engine installed in 2014. The diesel engine is not subject to the requirements of 40 CFR Part 60, Subpart IIII, or 40 CFR Part 63, Subpart ZZZZ, so long as the nonroad engine will not remain at a location for more than 12 consecutive months. A location is any single site at the KGCL facility. (9VAC5-60-100, 9VAC5-80-110, 40 CFR 60.4200(a), and 40 CFR 63.6585(a))
- 46. Fuel Burning Equipment Requirements Limitations Visible emissions from the CI RICE used by the water pump engine (WP-ENG) shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30% opacity. This condition applies at all times except during startup, shutdown, and malfunction.

(9VAC5-80-110 and 9VAC5-50-80)

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- 47. Fuel Burning Equipment Requirements Monitoring The facility shall be equipped with a device to continuously measure and record the consumption of treated landfill gas by the combustion turbines (TG-1 to TG-4). Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the facility is operating.

 (9VAC5-80-110, 40 CFR 63.6125(c), and Condition 3.a. of 12/21/17 Permit)
- 48. Fuel Burning Equipment Requirements Monitoring The facility shall log observations of landfill gas flow to the four combustion turbines (TG-1 to TG-4) when operating (combustion turbines noted as "OFF" or "0" when not running). The log shall contain a minimum of hourly observations processed monthly and stored onsite. The log shall be used for emissions calculations during periods where some or all electronic data are not available. In the case where no electronic information or manual records are available, the facility will calculate emissions using worst case scenario.

 (9VAC5-80-110, 40 CFR 63.6125(c), and Condition 4 of 12/21/17 Permit)
- 49. Fuel Burning Equipment Requirements Monitoring The facility shall determine the heat value of the treated LFG on a weekly basis, using the following formula:

Heat Value (BTU/cubic foot) = (% Methane/100) × (1012 BTU/cubic foot)

A log of the measured methane concentration values and the resultant calculated treated landfill gas heating value shall be maintained. The methane-measuring device shall be maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. The measuring device shall be provided with adequate access for inspection. (9VAC5-80-110, 40 CFR 63.6150(c), and Condition 7 of 12/21/17 Permit)

50. Fuel Burning Equipment Requirements - Monitoring - The facility shall monitor the total sulfur content of the treated LFG fuel at the inlet and outlet of the sulfur control system for the combustion turbines (TG-1 to TG-4) using the approved custom schedule in 40 CFR 60.4370(c)(1)(i-iv) or other DEQ approved custom schedule. The facility, when using this pre-approved method shall monitor total sulfur content of the landfill gas measured as Hydrogen Sulfide (H₂S) for thirty consecutive unit operating days. If all the sulfur content results are less than half the standard in Condition 31, then the facility shall monitor total sulfur content at twelve month intervals until the result exceeds half the standard (see 40 CFR 60.4370(c)(1)(i-iv) for custom schedule). The facility shall report any missed sulfur content test or if results, after the sulfur control system, are above the sulfur content standard as required in 40 CFR 60.4385(c). The sulfur content of the landfill gas fuel shall be determined using the total sulfur method described in Gas Processors Association (GPA) Standard 2377 (see 40 CFR 60.17), which measures the major sulfur

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compound (Hydrogen Sulfide) using a "Length of Stain" Detector Tube or other approved method.

(9VAC5-80-110, 40 CFR 60.17, 40 CFR 60.4360, 40 CFR 60.4370, 40 CFR 60.4375(a), 40 CFR 60.4385(c), and Condition 8 of 12/21/17 Permit)

- 51. Fuel Burning Equipment Requirements Monitoring The permittee shall perform a visual emission observation (VEO) on the exhaust stack of each combustion turbine (TG-1 to TG-4) at least once per calendar week, when operating. The observations shall be conducted during daylight hours and under normal operating conditions to identify the presence of visible emissions. If no visible emissions are observed, no further action is required. If visible emissions are observed, the permittee shall proceed as follows:
 - a. Take timely corrective action and re-conduct the observation to ensure the turbine has resumed proper operation with no visible emissions, or
 - b. Conduct a visible emission evaluation (VEE) in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A) for a minimum of six (6) minutes, to ensure visible emissions from the turbine are in compliance with Condition 32. If any of the 15-second observations exceeds 10% opacity, the VEE shall be extended for a minimum of 30 minutes. Timely corrective action shall be taken, if necessary, such that the turbine resumes operation in compliance with Condition 32.

The permittee shall maintain an observation log to demonstrate compliance with these monitoring requirements. The logbook shall include the date and time of each observation, name of the observer, whether or not there were visible emissions, any VEE recordings and necessary corrective actions. If a turbine has not been operated during a week, it shall be noted in the log that a VEO was not required. The logbook shall be available on site for inspection by the DEQ and be current for the most recent five (5) years. (9VAC5-80-110 E)

- 52. Fuel Burning Equipment Requirements Monitoring The permittee shall perform a visual emission observation (VEO) on each open flare (CF-1 to CF-4) at least once per calendar week, when operating. The observations shall be conducted during daylight hours and under normal operating conditions to identify the presence of visible emissions. If no visible emissions are observed, no further action is required. If visible emissions are observed, the permittee shall proceed as follows:
 - a. Take timely corrective action and re-conduct the observation to ensure the flare has resumed proper operation with no visible emissions, or
 - b. Conduct a visual determination of smoke from the flares in accordance with EPA Method 22 (reference 40 CFR 60, Appendix A) to determine compliance with Condition 32. If there is an exceedance of the visible emission limit, timely corrective

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action shall be taken such that the flare resumes operation in compliance with the visible emission limit, as stated in Condition 32.

The permittee shall maintain an observation log to demonstrate compliance with these monitoring requirements. The logbook shall include the date and time of each observation, name of the observer, whether or not there were visible emissions, Method 22 recordings and necessary corrective actions. If a flare has not been operated during a week, it shall be noted in the log that a VEO was not required. The logbook shall be available on site for inspection by the DEQ and be current for the most recent five (5) years. (9VAC5-80-110 E)

- 53. Fuel Burning Equipment Requirements Monitoring The permittee shall install a non-resettable hour meter for the emergency generator diesel engines (F004 and F007). The permittee shall install a backpressure monitor if the emergency generator diesel engines (F004 and F007) are equipped with diesel particulate filters. (9VAC5-80-110 and 40 CFR 60.4209(a) and (b))
- 54. Fuel Burning Equipment Requirements Monitoring The permittee shall install a non-resettable hour meter for the emergency generator propane-fired engines (F005 and F006). (9VAC5-60-100, 9VAC5-80-110, and 40 CFR 63.6625(f))
- 55. Fuel Burning Equipment Requirements Monitoring The permittee shall demonstrate continuous compliance with the work and management practices applicable to the emergency generator propane-fired engines (F005 and F006) according to the following methods:
 - a. Operating and maintaining the engine according to the manufacturer's emission-related operation and maintenance instructions; or
 - b. Develop and follow a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engines in a manner consistent with good air pollution control practices for minimizing emissions.

(9VAC5-60-100, 9VAC5-80-110, and 40 CFR 63.6640(a))

- 56. Fuel Burning Equipment Requirements Monitoring The permittee shall perform a visual emission observation (VEO) on the exhaust stack of the water pump engine (WP-ENG) at least once per month, when operating. The observations shall be conducted during daylight hours and under normal operating conditions to identify the presence of visible emissions. If visible emissions are observed, the permittee shall proceed as follows:
 - a. Take timely corrective action and re-conduct the observation to ensure the engine has resumed proper operation with no visible emissions, or
 - b. Conduct a visible emissions evaluation (VEE) in accordance with EPA Method 9

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(reference 40 CFR 60, Appendix A) for a minimum of six (6) minutes, to ensure visible emissions from the engine meet the opacity standard stated in Condition 46. If any of the 15-second observations exceeds 20% opacity, the VEE shall be extended for a minimum of 30 minutes. Timely corrective action shall be taken, if necessary, such that the engine resumes operation in compliance with Condition 46.

The permittee shall maintain an observation log to demonstrate compliance with these monitoring requirements. The logbook shall include the date and time of each observation, name of the observer, whether or not there were visible emissions, any VEE recordings and necessary corrective actions. If the engine has not been operated during the month, it shall be noted in the log that a visual observation was not required. The logbook shall be available on site for inspection by the DEQ and be current for the most recent five (5) years. (9 VAC 5-80-110 E)

- 57. Fuel Burning Equipment Requirements Recordkeeping The facility shall maintain records of emissions data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Regional Air Compliance Manager of the DEQ's NRO (at the address listed in Condition 79). These records shall include, but are not limited to:
 - a. The yearly throughput of LFG to the flares (CF-1 to CF-4), calculated monthly as the sum of each consecutive twelve (12) month period;
 - b. The yearly throughput of treated LFG to the combustion turbines (TG-1 to TG-4), calculated monthly as the sum of each consecutive twelve (12) month period;
 - c. Monthly and annual emissions (in tons) using calculation methods approved by the Regional Air Compliance Manager of DEQ's NRO to verify compliance with the annual emission limitations (i.e., tons per year) in Condition 31. Annual emissions shall be calculated monthly as the sum of each consecutive twelve (12) month period;
 - d. A log for each monitoring device data and the observations, as required by Condition 48 for the landfill gas flow to the combustion turbines;
 - e. Weekly landfill gas calorific value determination results, including percent methane readings as described in Condition 49;
 - f. All treated landfill gas sulfur content results and reports of excess emissions required by 40 CFR 60.4385(c) and Condition 50;
 - g. Scheduled and unscheduled maintenance on the combustion turbines (TG-1 to TG-4);
 - h. Operating procedures and operator training records for the combustion turbines (TG-1 to TG-4);

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The content and format of such additional records shall be arranged with the Regional Air Compliance Manager of the DEQ's NRO. All records required by this condition and by 40 CFR Part 60, Subparts WWW, IIII and KKKK, and 40 CFR Part 63, Subparts YYYY and ZZZZ shall be available on site for inspection by the DEQ and shall be kept current for the most recent five (5) years.

(9VAC5-50-50, 9VAC5-80-110, 40 CFR 63.6125(c), and Condition 35 of 12/21/17 Permit)

- 58. Fuel Burning Equipment Requirements Recordkeeping The permittee shall keep a copy of each notification and report pertaining to the combustion turbines (TG-1 to TG-4) submitted to comply with 40 CFR Part 63, Subpart YYYY, including all documentation supporting any initial notification or notification of compliance status submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv). The permittee shall maintain all applicable records in such a manner that they can be readily accessed and are suitable for inspection according to 40 CFR 63.63.10(b)(1). As specified in 40 CFR 63.10(b)(1), the permittee shall keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The permittee shall retain records of the most recent 2 years on site or the records must be accessible on site. Records of the remaining 3 years may be retained off site.

 (9VAC5-50-50, 9VAC5-80-110, 9VAC5-60-100, 40 CFR 63.6155(a)(1), and 40 CFR 63.6160)
- 59. **Fuel Burning Equipment Requirements Recordkeeping -** If the emergency generator diesel engines (F004 and F007) are equipped with a diesel particulate filter, the permittee must keep records of any corrective action taken after the backpressure monitor has notified the permittee that the high backpressure limit of the engine is approached. (9VAC5-50-410, 9VAC5-80-110, and 40 CFR 60.4214(c))
- 60. Fuel Burning Equipment Requirements Recordkeeping The permittee shall maintain records of all emission data and operating parameters for the emergency generator propane-fired engines (F005 and F006) necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Southwest Regional Office. These records shall include, but are not limited to:
 - a. Manufacturer's emission-related operation and maintenance instructions or the permittee-developed maintenance plan for the emergency generator propane-fired engines as required in Condition 43.
 - b. Maintenance conducted under the maintenance plan developed in accordance with Condition 43.
 - c. Hours of operation that is recorded through the non-resettable hour meter, including how many hours are spent for emergency operation, what classified the operation as emergency and how many hours are spent for non-emergency operation.

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These records must be in a form suitable and readily available for expeditious review according to 40 CFR 63.10(b)(1), and as specified in §63.10(b)(1), each record must be kept for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. Each record must be kept readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). (9VAC5-60-100, 9VAC5-80-110, 40 CFR 63.6655(e) and (f), and 40 CFR 63.6660(a) – (c))

- 61. Fuel Burning Equipment Requirements Testing The facility shall perform an annual performance test on the four combustion turbines (TG-1 through TG-4) in accordance with 40 CFR 60.4400 to demonstrate continuous compliance for the NO_x emission limit, as stated in Condition 31, and 40 CFR 60.4415 to demonstrate continuous compliance for the SO₂ emission limit (which is met by Condition 50). If the NO_x emission result from the performance test is less than or equal to 75 percent of the NO_x emission limit standard for the turbine in 40 CFR 60.4320, the facility may reduce the frequency of subsequent performance tests to once every two years (no more than 26 calendar months following the previous performance test). If the results of any subsequent performance test exceed 75 percent of the NO_x emission limit standard for the turbines, the facility must resume annual performance tests. The NO_x performance tests shall at a minimum be conducted once every two years on all stacks and before the operating permit renewal application for NO_x. The tests shall be performed at plus or minus 25% of 100% peak load on each of the four combustion turbines. The tests shall be conducted and reported and data reduced as set forth in 9VAC5-50-30 and the test methods and procedures contained in each applicable section or subpart listed in 9VAC5-50-410. The details of the tests are to be arranged with the Regional Air Compliance Manager of the DEQ's NRO. The facility shall submit a test protocol at least thirty days prior to testing. Two copies of the test results shall be submitted to the Regional Air Compliance Manager of the DEO's NRO within sixty days after test completion and shall conform to the test report format enclosed with this permit. (9VAC5-80-110, 40 CFR 60.4340(a), 40 CFR 60.4375(b), and Condition 26 of 12/21/17 Permit)
- 62. Fuel Burning Equipment Requirements Testing Upon request by the DEQ, the permittee shall conduct additional visible emission evaluations of the combustion turbines (TG-1 to TG-4) to demonstrate compliance with the visible emission limits contained in this permit. The details of the VEE shall be arranged with the Regional Air Compliance Manager of the DEQ's NRO at the address listed in Condition 79. (9VAC5-80-110 and Condition 29 of 12/21/17 Permit)
- 63. Fuel Burning Equipment Requirements Reporting The permittee shall submit an initial notification for the combustion turbines (TG-1 to TG-4) which must include the information in 40 CFR 63.9(b)(2)(i) through (v) and a statement that the combustion turbines have no additional emission limitation requirements and must explain the basis of

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the exclusion. The initial notification shall be submitted according to the applicable dates specified in 40 CFR 63.6145.

(9VAC5-80-110, 9VAC5-60-100, and 40 CFR 63.6145(d))

- 64. Fuel Burning Equipment Requirements Reporting The permittee shall submit an annual report for the combustion turbines (TG-1 to TG-4) according to Table 6 of 40 CFR 63, Subpart YYYY by the date specified unless the DEQ has approved a different schedule, according to the information described in paragraph d of this Condition. The permittee must report the data specified in paragraphs a through c of this Condition.
 - a. Fuel flow rate of each fuel and the heating values that were used in the calculations.

 The permittee must also demonstrate that the percentage of heat input by landfill gas is equivalent to 10 percent or more of the total fuel consumption on an annual basis.
 - b. The operating limits provided in the applicable federally enforceable permit, and any deviations from these limits.
 - c. Any problems or errors suspected with the meters.
 - d. Dates of submittal for the annual report are as follows:
 - i. The first annual report must cover the period beginning on the compliance date specified in 40 CFR 63.6095 and ending on December 31.
 - ii. The first annual report must be postmarked or delivered no later than January 31.
 - iii. Each subsequent annual report must cover the annual reporting period from January 1 through December 31.
 - iv. Each subsequent annual report must be postmarked or delivered no later than January 31.
 - v. For each stationary combustion turbine that is subject to permitting regulations pursuant to 40 CFR Part 70 or 71, and if the permitting authority has established the date for submitting annual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), the permittee may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs d.i through d.iv of this Condition.

(9VAC5-80-110, 9VAC5-60-100, 40 CFR 63.6145(d), and 40 CFR 63.6150(c))

65. Fuel Burning Equipment Requirements - Reporting - If the emergency generator diesel engines (F004 and F007) are operated for the purposes of 40 CFR 60.4211(f)(3)(i), the permittee must submit an annual report according to the requirements in a through c of this condition.

- a. The report must contain the following information:
 - i. Company name and address where the engine is located.
 - ii. Date of the report and beginning and ending dates of the reporting period.
 - iii. Engine site rating and model year.
 - iv. Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.
 - v. Hours spent for operation for the purposes specified in 40 CFR 60.4211(f)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in 40 CFR 60.4211(f)(3)(i). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.
- b. Annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.
- c. The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to 40 CFR Part 60, Subpart IIII is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in 40 CFR 60.4.

(9VAC5-50-410, 9VAC5-80-110, and 40 CFR 60.4214(d))

- 66. Fuel Burning Equipment Requirements Reporting The permittee must report each instance in which the requirements applicable to the emergency generator propane-fired engines (F005 and F006) in Table 8 to 40 CFR Part 63, Subpart ZZZZ are not met. (9VAC5-60-100, 9VAC5-80-110, and 40 CFR 63.6640(e))
- 67. Fuel Burning Equipment Requirements Reporting The permittee must report, in regards to the emergency generator propane-fired engines (F005 and F006), all deviations as defined in 40 CFR Part 63, Subpart ZZZZ in the semiannual monitoring report required by Condition 86 of this permit.

(9VAC5-60-100, 9VAC5-80-110, and 40 CFR 63.6650(f))

Process Equipment Requirements - (LC-1, LC-2, LC-3, TG-2. TG-3 and TG-4)

68. Process Equipment Requirements - Limitations - Visible emissions, particulate emissions and volatile organic compounds (VOC) emissions from the operation of the leachate concentrators (LC-1 to LC-3) shall be controlled by the use of good operating practices and performing appropriate maintenance in accordance with the manufacturer recommendation.

(9VAC5-80-110 and Condition 2 of 12/21/17 Permit)

- 69. Process Equipment Requirements Limitations The throughput of leachate for leachate concentrator LC-3 shall not exceed 13.5 million gallons per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months. (9VAC5-80-110 and Condition 18 of 12/21/17 Permit)
- 70. Process Equipment Requirements Limitations The volatile organic compounds (VOC) content of the leachate as delivered to the leachate concentrators (LC-1 to LC-3) shall not exceed 106.4 milligrams per liter (mg/L). Samples of the leachate shall be taken at least annually for analysis, as stated in Condition 74, to show compliance with the limitation.

 (9VAC5-80-110 and Condition 21 of 12/21/17 Permit)
- 71. Process Equipment Requirements Limitations Particulate matter (PM) and volatile organic compounds (VOC) emissions from the leachate concentrators (LC-1 to LC3), which includes exhaust emissions from three turbines (TG-3, TG-4 and TG-2) shall not exceed the limits specified below:

	Ref. No. LC1, LC2 (includes TG-3, TG-4	Ref. No. LC3 , TG-2 emissions)	Total LC1, LC2, LC3 (Combined)
PM-10 (including condensable PM)	2.50 lbs/hr, each	3.33 lbs/hr	35.40 tons/yr
PM-2.5 (including condensable PM)	2.50 lbs/hr, each	3.33 lbs/hr	35.40 tons/yr
Volatile Organic Compounds	1.40 lbs/hr, each	1.77 lbs/hr	19.53 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence

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of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition numbers 69 and 74. (9VAC5-80-110 and Condition 22 of 12/21/17 Permit)

72. Process Equipment Requirements - Monitoring - Each leachate concentrator (LC-1 to LC-3) shall be equipped with devices (flow meters) to continuously measure the volume of leachate processed. Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the facility is operating.

(9VAC5-80-110 and Condition 3.c. of 12/21/17 Permit)

73. Process Equipment Requirements - Monitoring - To ensure proper performance, the monitoring devices used to continuously measure the volume of leachate to each concentrator (LC-1 to LC-3) shall be observed by the permittee with a frequency of not less than daily (excluding weekends and holidays) in which the equipment is operated. Refer to Condition 75 for recordkeeping requirements to demonstrate compliance with this condition.

(9VAC5-80-110 and Condition 6 of 12/21/17 Permit)

- 74. Process Equipment Requirements Monitoring The permittee shall sample and analyze leachate from the landfill annually. Leachate sampling shall be conducted in accordance with EPA test methods or other DEQ approved methods. Samples taken for laboratory testing shall be analyzed in accordance with 1VAC30-45, Certification for Noncommercial Environmental Laboratories, or 1VAC30-46, Accreditation for Commercial Environmental Laboratories. One hard copy and an electronic copy of the test results shall be submitted to the Regional Air Compliance Manager of the DEQ's NRO within 60 days of the date the sample was collected. The results of the leachate analysis shall include its contents of total dissolved solids, volatile organic compounds, hazardous air pollutants, also the name of the company and individual collecting the sample, identification of sampling method used, sample {volume or mass}, number of samples, date sample collected, location of leachate when sample taken, date of analysis, company and individual conducting the analysis. (9VAC5-80-110 and Condition 27 of 12/21/17 Permit)
- 75. **Process Equipment Requirements Recordkeeping -** The facility shall maintain records of emissions data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Regional Air Compliance Manager of the DEQ's NRO (at the address listed in Condition 79). These records shall include, but are not limited to:
 - a. The yearly throughput of leachate to the leachate concentrators (LC-1 to LC-3), calculated monthly as the sum of each consecutive twelve (12) month period;

- b. Monthly and annual emissions (in tons) using calculation methods approved by the Regional Air Compliance Manager of DEQ's NRO to verify compliance with the annual emission limitations (i.e., tons per year) in Condition 71. Annual emissions shall be calculated monthly as the sum of each consecutive twelve (12) month period; and
- c. A log for each monitoring device data and the observations, as required by Condition 73 for the volume of leachate through the concentrators; and
- d. Results of all leachate sampling and analysis.

The content and format of such additional records shall be arranged with the Regional Air Compliance Manager of the DEQ's NRO. All records required by this Condition shall be available on site for inspection by the DEQ and shall be kept current for the most recent five (5) years.

(9VAC5-50-50, 9VAC5-80-110, and Condition 35 of 12/21/17 Permit)

Facility Wide Conditions

- 76. Facility Wide Conditions Recordkeeping The facility shall maintain records of emissions data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Regional Air Compliance Manager of the DEQ's NRO (at the address listed in Condition 79). These records shall include, but are not limited to results of all stack tests, visible emission evaluations, monthly visible emission evaluations log and performance evaluations. The content and format of such additional records shall be arranged with the Regional Air Compliance Manager of the DEQ's NRO. All records required by this Condition and by 40 CFR Part 60, Subparts WWW, IIII, and KKKK, and 40 CFR Part 63, Subparts AAAA, YYYY, and ZZZZ (see Conditions 22, 57, 58, 59 and 60) shall be available on site for inspection by the DEQ and shall be kept current for the most recent five (5) years. (9VAC5-50-50, 9VAC5-80-110, and Condition 35 of 12/21/17 Permit)
- 77. Facility Wide Conditions Testing Upon request by the DEQ, the permittee shall conduct additional performance tests for emissions from the equipment (turbines, leachate concentrators and flares) to demonstrate compliance with the emission limits contained in this permit. The details of the tests shall be arranged with the Regional Air Compliance Manager of the DEQ's NRO.

 (9VAC5-80-110 and Condition 28 of 12/21/17 Permit)
- 78. Facility Wide Conditions Testing The permitted facility shall be constructed so as to allow for emissions testing and monitoring upon reasonable notice at any time, using appropriate methods. Sample ports shall be provided at the appropriate locations and safe sampling platforms and access shall be provided.

 (9VAC5-80-110 and Condition 30 of 12/21/17 Permit)

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79. **Facility Wide Conditions - Reporting** - All correspondence concerning this permit should be submitted to the following address:

Regional Air Compliance Manager
Department of Environmental Quality
Northern Regional Office
13901 Crown Court
Woodbridge, VA 22193
(9VAC5-80-110 and Condition 31 of 12/21/17 Permit)

Insignificant Emission Units

80. **Insignificant Emission Units -** The following emission units at the facility are identified in the application as insignificant emission units under 9VAC5-80-720:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9VAC5-80-720B)	Rated Capacity (9VAC5-80-720C)
P002	Diesel Storage Tank	5-80-720.A.41.	VOC	10,000 gal
P003	Oil Recovery Tank	5-80-720.C.3.	VOC	500 gal
P004	Leachate Tank	5-80-720.B.2. & B.5.	VOC & HAPs	250,000 gal
P005	Leachate Tank	5-80-720.B.2. & B.5.	VOC & HAPs	250,000 gal
P006	Leachate Tank	5-80-720.B.2. & B.5.	VOC & HAPs	250,000 gal
P007	Diesel Storage Tank	5-80-720.A.41.	VOC	10,000 gal
P009	Used Oil Storage Tank	5-80-720.C.3.	VOC	550 gal
P010	Transmission Oil Tank	5-80-720.C.3.	VOC	275 gal
P011	Hydraulic Oil Storage Tank	5-80-720.C.3.	VOC	550 gal
P012	Transmission Oil Storage Tank	5-80-720.C.3.	VOC	550 gal
P013	Engine Oil Storage Tank	5-80-720.C.3.	VOC	550 gal
P015	Used Oil Storage Tank	5-80-720.C.3.	VOC	550 gal

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9VAC5-80-720B)	Rated Capacity (9VAC5-80-720C)
P016	Diesel Fuel Storage Tank for Flare Emergency Generator	5-80-720.A.41.	VOC	875 gal
P017	Leachate Tank	5-80-720.B.2. & B.5.	VOC & HAPs	250,000 gal
P018	Diesel Fuel Tank for Rail Tipper	5-80-720.C.3.	voc	1,000 gal
P019	Hydraulic Oil Storage Tank for Rail Tipper	5-80-720.C.3.	VOC	250 gal
F003	Emergency Generator (diesel)	5-80-720.C.1.a.	NOx, CO, SO ₂ , PM, VOC, & HAPs	Portable Unit
F008	Emergency Generator (diesel)	5-80-720.C.1.a.	NOx, CO, SO ₂ , PM, VOC, & HAPs	Portable Unit
F009	Emergency Generator (gasoline)	5-80-720.C.1.b.	NOx, CO, SO ₂ , PM, VOC, & HAPs	Portable Unit
T1	Organic Phase Condensate – Turbine Plant	5-80-720.B.2. & B.5.	VOC & HAPs	500 gal
OW-1	Oil-water separator for organic phase condensate	5-80-720.B.2. & B.5.	VOC & HAPs	25 gal/min design flow rate
GC-1	Vent from gas chromatograph (LFG analysis equipment) – Turbine Plant	5-80-720.A.45.	VOC & HAPs	N/A – listed insignificant activity
LC1	Leachate Balance Tank for Leachate Concentrator Process (shared by two leachate concentrators)	5-80-720.B.	VOC & HAPs	8,000 gal
LC2	Leachate Concentrate Tank	5-80-720.B.	VOC & HAPs	9,300 gal

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9VAC5-80-720B)	Rated Capacity (9VAC5-80-720C)
LC3	Leachate Concentrate Tank	5-80-720.B.	VOC & HAPs	9,300 gal
LRCIRC	Recirculation of leachate on the landfill's active face	5-80-720.B.	VOC & HAPs	30,000 gal/day by permit
HTR-1	Propane-fired comfort heater	5-80-720.B.	NOx, CO, SO ₂ , PM, VOC, & HAPs	0.15 MMBtu/hr
HTR-2	Propane-fired comfort heater	5-80-720.B.	NOx, CO, SO ₂ , PM, VOC, & HAPs	0.15 MMBtu/hr
HTR-3	Oil-fired comfort heater	5-80-720.B.	NOx, CO, SO ₂ , PM, VOC, & HAPs	650,000 Btu/hr
HTR-4	Oil-fired comfort heater	5-80-720.B.	NOx, CO, SO ₂ , PM, VOC, & HAPs	75,000 Btu/hr
HTR-5	Oil-fired comfort heater	5-80-720.B.	NOx, CO, SO ₂ , PM, VOC, & HAPs	400,000 Btu/hr
HTR-6	Oil-fired comfort heater	5-80-720.B.	NOx, CO, SO ₂ , PM, VOC, & HAPs	650,000 Btu/hr
SOLIDIF	Solidification of liquid wastes (waste management process)	5-80-720.B.	PM, VOC, & HAPs	N/A – calculations based on 300,000 gallons of liquid/year
ALTCOV	Use of contaminated soils for alternate daily cover	5-80-720.B.	VOC & HAPs	N/A – calculations based on maximum allowable TPH of 3,000 ppm
LTPLNT1	Diesel-fueled Light Plant Engine (2008)	5-80-720.C.1.a.	NOx, CO, SO ₂ , PM, VOC, & HAPs	11 hp
LTPLNT2	Diesel-fueled Light Plant Engine (2008)	5-80-720.C.1.a.	NOx, CO, SO ₂ , PM, VOC, & HAPs	11 hp
LTPLNT3	Diesel-fueled Light Plant Engine (2011)	5-80-720.C.1.a.	NOx, CO, SO ₂ , PM, VOC, & HAPs	11 hp
LTPLNT4	Diesel-fueled Light Plant Engine (2011)	5-80-720.C.1.a.	NOx, CO, SO ₂ , PM, VOC, & HAPs	11 hp
LTPLNT5	Diesel-fueled Light Plant Engine (2011)	5-80-720.C.1.a.	NOx, CO, SO2, PM, VOC, & HAPs	11 hp

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9VAC5-80-720B)	Rated Capacity (9VAC5-80-720C)
LC4-T	Leachate Solids Settling Tank	5-80-720.B.	VOC & HAPs	10,000 gallons
LC5-T	Defoamer Tank for Leachate	5-80-720.B.	VOC & HAPs	3,000 gallons
LC6-T, LC7-T & LC8-T	Defoamer Agent Tanks (sealed tanks, no vents)	5-80-720.A.42.	VOC & HAPs	150 gallons, each
Air-1	Portable Air Compressor Ingersoll Rand (diesel)	5-80-720.C.1.a.	NOx, CO, SO2, PM, VOC, & HAPs	66 hp
Air-2, 3, 4	Portable Air Compressor Atlas Copco (diesel)	5-80-720.C.1.a.	NOx, CO, SO2, PM, VOC, & HAPs	49 hp
Air-5	Portable Air Compressor Ingersoll rand (gasoline)	5-80-720.C.1.b.	NOx, CO, SO2, PM, VOC, & HAPs	12.5 hp
Parts-1	Safety Kleen – Model 30	5-80-720.B.	VOC & HAPs	30 gallons
Parts-2	Crystal Clean Model 2725	5-80-720.B.	VOC & HAPs	20 gallons
PW-1	Portable Generac 2800 psi, Portable Pressure Washer	5-80-720.C.1.b.	NOx, CO, SO2, PM, VOC, & HAPs	14 hp
PW-2	Portable Generac 3500 psi, Portable Pressure Washer	5-80-720.C.1.b.	NOx, CO, SO2, PM, VOC, & HAPs	22 hp
PW-3	Portable Northstar 4000 psi, Portable Pressure Washer	5-80-720.C.1.b.	NOx, CO, SO2, PM, VOC, & HAPs	23.5 hp
DEODER	Deodorizer Product For Odor Control At The Working Face – Buffalo Turbine Mister System	5-80-720.A.43.	None	20 gpm

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9VAC5-80-720B)	Rated Capacity (9VAC5-80-720C)
DEODER -ENG	Diesel Engine For Deodorizer Unit	5-80-720.C.1.a.	NOx, CO, SO2, PM, VOC, & HAPs	26.5 hp
POSI- SHELL SILO	Silo For Posi- Shell Alternative Daily Cover	5-80-720.B.	PM	N/A
ALT DAILY COV EQUIP	Leased Equipment For Application Of Posi-Shell (diesel)	5-80-720.A.23.	NOx, CO, SO2, PM, VOC, & HAPs	N/A
WELD-1	Miller Bobcat Welder Generator (truck mounted)	5-80-720.C.1.b.	NOx, CO, SO2, PM, VOC, & HAPs	10 kW
WELD-2	Bobcat 250 NT Welder Generator	5-80-720.C.1.b.	NOx, CO, SO2, PM, VOC, & HAPs	20 hp
WELD-3	Miller Trailblazer Welder Generator	5-80-720.C.1.a.	NOx, CO, SO2, PM, VOC, & HAPs	18.8 hp
BUGGY	Gas Tech Buggy Engine	5-80-720.C.1.a.	NOx, CO, SO2, PM, VOC, & HAPs	20 hp

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9VAC5-80-110. (9VAC5-80-110)

Permit Shield & Inapplicable Requirements

81. **Permit Shield & Inapplicable Requirements** - Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of Applicability
40 CFR 60 Subpart	Emission Standards for	These regulations only apply to
Cc and Rule 4-43 (9	Municipal Solid Waste Landfills	MSW landfills which commenced
VAC 5-40-5800 et		construction, reconstruction, or
seq.)		modification before May 30,
		1991.
40 CFR 60 Subpart	Standards of Performance for	Vapor pressures of the four
Kb and Rule 4-25 (9	Volatile Organic Liquid Storage	leachate tanks were calculated to
VAC 5-40-3410 et	Vessels	be below the applicability
seq.)		threshold.
40 CFR 60 Subpart	Standards of Performance for	Turbines combusting "treated"
WWW	Municipal Solid Waste Landfills	LFG are not subject to the cited
		NSPS testing, monitoring,
		recording, and reporting
		requirements (four combustion
		turbines, TG-1 to TG-4)
40 CFR 63 Subpart	NESHAPs for Municipal Solid	Recordkeeping and reporting
AAAA	Waste Landfills	requirements are not applicable to
		combustion devices that use
		"treated" LFG (four combustion
		turbines TG-1 to TG-4)
40 CFR 64	Compliance Assurance	The Landfill is subject to an
	Monitoring	NSPS that was proposed after
	·	11/15/1990. Therefore, this
		regulation does not apply.
40 CFR 72 – 78	Acid Rain Regulations	The landfill gas to energy plant is
		not considered a "qualifying
		facility."

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by (i) the administrator pursuant to §114 of the federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law.

(9VAC5-80-110 and 9VAC5-80-140)

General Conditions

82. **General Conditions - Federal Enforceability** - All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.

(9VAC5-80-110)

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83. General Conditions - Permit Expiration

- a. This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete application for renewal to the Department consistent with the requirements of 9VAC5-80-80, the right of the facility to operate shall be terminated upon permit expiration.
- b. The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.
- c. If an applicant submits a timely and complete application for an initial permit or renewal under 9VAC5-80-80 F, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9VAC5 Chapter 80, until the Board takes final action on the application under 9VAC5-80-150.
- d. No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9VAC5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9VAC5 Chapter 80.
- e. If an applicant submits a timely and complete application under section 9VAC5-80-80 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9VAC5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.
- f. The protection under subsections F 1 and F 5 (ii) of section 9VAC5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9VAC5-80-80 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application.

(9VAC5-80-80, 9VAC5-80-110, and 9VAC5-80-170)

- 84. General Conditions Recordkeeping and Reporting All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:
 - a. The date, place as defined in the permit, and time of sampling or measurements;
 - b. The date(s) analyses were performed;

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- c. The company or entity that performed the analyses;
- d. The analytical techniques or methods used;
- e. The results of such analyses; and
- f. The operating conditions existing at the time of sampling or measurement. (9VAC5-80-110)
- 85. General Conditions -Recordkeeping and Reporting Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. (9VAC5-80-110)
- 86. General Conditions -Recordkeeping and Reporting The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than March 1 and September 1 of each calendar year. This report must be signed by a responsible official, consistent with 9VAC5-80-430 G, and shall include:
 - a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31; and
 - b. All deviations from permit requirements. For purpose of this permit, deviations include, but are not limited to:
 - i. Exceedances of emissions limitations or operational restrictions;
 - ii. Excursions from control device operating parameter requirements, as documented by continuous emission monitoring or periodic monitoring, or Compliance Assurance Monitoring (CAM) which indicates an exceedance of emission limitations or operational restrictions; or,
 - iii. Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.
 - c. If there were no deviations from permit conditions during the time period, the
 permittee shall include a statement in the report that "no deviations from permit
 requirements occurred during this semi-annual reporting period."
 (9VAC5-80-110)
- 87. General Conditions Annual Compliance Certification Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and

DEQ no later than March 1 each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices for the period ending December 31. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. The permittee shall maintain a copy of the certification for five (5) years after submittal of the certification. This certification shall be signed by a responsible official, consistent with 9VAC5-80-430 G, and shall include:

- a. The time period included in the certification. The time period to be addressed is January 1 to December 31;
- b. The identification of each term or condition of the permit that is the basis of the certification;
- c. The compliance status;
- d. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance;
- e. Consistent with subsection 9VAC5-80-490 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period;
- f. Such other facts as the permit may require to determine the compliance status of the source; and
- g. One copy of the annual compliance certification shall be submitted to EPA in electronic format only. The certification document should be sent to the following electronic mailing address:

R3 APD Permits@epa.gov

(9VAC5-80-110 K.5)

88. General Conditions - Permit Deviation Reporting - The permittee shall notify the Director, DEQ Northern Regional Office within four daytime business hours after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. Owners subject to the requirements of 9VAC5-40-50 C and 9VAC5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9VAC5-40-40 and 9VAC5-50-40. The occurrence should also be reported

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in the next semi-annual compliance monitoring report pursuant to Condition 86 of this permit.

(9VAC5-80-110 F. 2)

- 89. General Conditions Failure/Malfunction Reporting In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall no later than four daytime business hours after the malfunction is discovered, notify the Director, DEQ Northern Regional Office such failure or malfunction and within 14 days provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9VAC5-40-50 C and 9VAC5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9VAC5-40-40 and 9VAC5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Director, DEQ Northern Regional Office. (9VAC5-80-110 and 9VAC5-20-180)
- 90. General Conditions Severability The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.

 (9VAC5-80-110)
- 91. General Conditions Duty to Comply The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is ground for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.

 (9VAC5-80-110)
- 92. General Conditions Need to Halt or Reduce Activity not a Defense It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

 (9VAC5-80-110)
- 93. General Conditions Permit Modification A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9VAC5-80-50, 9VAC5-80-1100, 9VAC5-80-1605, or 9VAC5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios.

 (9VAC80-110, 9VAC5-80-190 and 9VAC5-80-260)

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- 94. General Conditions Property Rights The permit does not convey any property rights of any sort, or any exclusive privilege. (9VAC5-80-110)
- 95. General Conditions Duty to Submit Information The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality. (9VAC5-80-110)
- 96. General Conditions Duty to Submit Information Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9VAC5-80-80 G. (9VAC5-80-110)
- 97. General Conditions Duty to Pay Permit Fees The owner of any source for which a permit under 9VAC5-80-50 through 9VAC5-80-300 was issued shall pay permit fees consistent with the requirements of 9VAC5-80-310 through 9VAC5-80-350 in addition to an annual permit maintenance fee consistent with the requirements of 9VAC5-80-2310 through 9VAC5-80-2350. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by April 15 of each year. The calculations and final amount of emissions are subject to verification and final determination by DEQ. The amount of the annual permit maintenance fee shall be the largest applicable base permit maintenance fee amount from Table 8-11A in 9VAC5-80-2340, adjusted annually by the change in the Consumer Price Index. (9VAC5-80-110, 9VAC5-80-340, and 9VAC5-80-2340)
- 98. General Conditions Fugitive Dust Emission Standards During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:
 - a. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;
 - b. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;

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- Installation and use of hoods, fans, and fabric filters to enclose and vent the handling
 of dusty material. Adequate containment methods shall be employed during
 sandblasting or similar operations;
- d. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,
- e. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

 (9VAC5-80-110 and 9VAC5-50-90)
- 99. General Conditions Startup, Shutdown, and Malfunction At all times, including periods of startup, shutdown, and soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

 (9VAC5-80-110 and 9VAC5-50-20 E)
- 100. General Conditions Alternative Operating Scenarios Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9VAC5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9VAC5 Chapter 80, Article 1. (9VAC5-80-110)
- 101. General Conditions Inspection and Entry Requirements The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:
 - a. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.
 - b. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.

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- c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.
- d. Sample or monitor at reasonable times' substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.
 (9VAC5-80-110)
- 102. General Conditions Reopening for Cause The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 1/8 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9VAC5-80-80 F. The conditions for reopening a permit are as follows:
 - a. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
 - b. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
 - c. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9VAC5-80-110 D. (9VAC5-80-110)
- 103. General Conditions Permit Availability Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request. (9VAC5-80-110 and 9VAC5-80-150)

104. General Conditions - Transfer of Permits

- a. No person shall transfer a permit from one location to another, unless authorized under 9VAC5-80-130, or from one piece of equipment to another.
- b. In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9VAC5-80-200.

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c. In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9VAC5-80-200.

(9VAC5-80-110 and 9VAC5-80-160)

105. General Conditions - Permit Revocation or Termination for Cause - A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9VAC5 Chapter 80 Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe any permit for any grounds for revocation or termination or for any other violations of these regulations.

(9VAC5-80-110, 9VAC5-80-190 C, and 9VAC5-80-260)

- 106. General Conditions Duty to Supplement or Correct Application Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit. (9VAC5-80-110 and 9VAC5-80-80 E)
- 107. General Conditions Stratospheric Ozone Protection If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F. (9VAC5-80-110 and 40 CFR Part 82)
- 108. General Conditions Asbestos Requirements The permittee shall comply with the requirements of National Emissions Standards for Hazardous Air Pollutants (40 CFR 61) Subpart M, National Emission Standards for Asbestos as it applies to the following: Standards for Demolition and Renovation (40 CFR 61.145), Standards for Insulating Materials (40 CFR 61.148), and Standards for Waste Disposal (40 CFR 61.150). (9VAC5-60-70 and 9VAC5-80-110)
- 109. General Conditions Accidental Release Prevention If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68. (9VAC5-80-110 and 40 CFR Part 68)

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110. General Conditions - Changes to Permits for Emissions Trading - No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.

(9VAC5-80-110)

111. **General Conditions - Emissions Trading -** Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

- a. All terms and conditions required under 9VAC5-80-110, except subsection N, shall be included to determine compliance.
- b. The permit shield described in 9VAC5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.
- c. The owner shall meet all applicable requirements including the requirements of 9VAC5-80-50 through 9VAC5-80-300. (9VAC5-80-110)

Source Testing Report Format

Cover

- 1. Plant name and location
- 2. Units tested at source (indicate Ref. No. used by source in permit or registration)
- 3. Tester; name, address and report date

Certification

- 1. Signed by team leader / certified observer (include certification date)
- *2. Signed by reviewer

Introduction

- 1. Test purpose
- 2. Test location, type of process
- 3. Test dates
- *4. Pollutants tested
- 5. Test methods used
- 6. Observers' names (industry and agency)
- 7. Any other important background information

Summary of Results

- 1. Pollutant emission results / visible emissions summary
- 2. Input during test vs. rated capacity
- 3. Allowable emissions
- *4. Description of collected samples, to include audits when applicable
- 5. Discussion of errors, both real and apparent

Source Operation

- 1. Description of process and control devices
- 2. Process and control equipment flow diagram
- 3. Process and control equipment data

* Sampling and Analysis Procedures

- 1. Sampling port location and dimensioned cross section
- 2. Sampling point description
- 3. Sampling train description
- 4. Brief description of sampling procedures with discussion of deviations from standard methods
- 5. Brief description of analytical procedures with discussion of deviation from standard methods

Appendix

- *1. Process data and emission results example calculations
- 2. Raw field data
- *3. Laboratory reports
- 4. Raw production data
- *5. Calibration procedures and results
- 6. Project participants and titles
- 7. Related correspondence
- 8. Standard procedures

^{*} Not applicable to visible emission evaluations.